

Claims:

- 1 1. At least one integrated circuit comprising:
 - 2 image processing circuitry;
 - 3 said image processing circuitry being adapted to process digital pixel output signals
 - 4 produced by a digital imaging array;
 - 5 said image processing circuitry being adapted to process saturated digital pixel output
 - 6 signals differently from non-saturated digital pixel output signals.
- 1 2. The at least one integrated circuit of claim 1, wherein said imaging array includes imaging
 - 2 array sensors:
 - 3 said image processing circuitry being adapted to process saturated digital pixel output
 - 4 signals by subtracting an estimate of the dark image fixed pattern noise for said imaging array
 - 5 sensors.
- 1 3. The at least one integrated circuit of claim 2, wherein said image processing circuitry is
 - 2 adapted to estimate the dark fixed pattern noise by sampling from a dark image comprising stored
 - 3 digital pixel output signals.
- 4 4. The at least one integrated circuit of claim 3, wherein said image processing circuitry is
 - 5 adapted to sample the dark image in regions corresponding to the regions of saturated digital pixel
 - 6 output signals in an image of interest.
- 1 5. The at least one integrated circuit of claim 2, wherein said image processing circuitry is
 - 2 adapted for use with imaging array sensors comprising at least one of a CCD sensor and a CMOS
 - 3 sensor.
- 4 6. The at least one integrated circuit of claim 1, wherein the image processing circuitry
 - 5 comprises fixed pattern noise reduction circuitry.
- 1 7. The at least one integrated circuit of claim 6, wherein the fixed pattern noise reduction
 - 2 circuitry comprises dark fixed pattern noise reduction circuitry.
- 1 8. The at least one integrated circuit of claim 1, wherein said image processing circuitry is
 - 2 adapted to detect regions of saturated digital pixel output signals in an image of interest.
- 1 9. A digital camera comprising:
 - 2 a digital imaging array comprising a plurality of pixels, and imaging processing
 - 3 circuitry to process the digital pixel output signals produced by said imaging array;
 - 4 said imaging processing circuitry being adapted to process saturated digital pixel
 - 5 output signals differently from non-saturated digital pixel output signals.
- 1 10. The digital camera of claim 9, wherein said imaging array includes imaging array sensors;

2 said image processing circuitry being adapted to process saturated digital pixel
3 output signals by subtracting an estimate of the dark image fixed pattern noise for said
4 imaging array sensors.

1 11. The digital camera of claim 10, wherein said image processing circuitry is adapted to
2 estimate the dark fixed pattern noise by sampling from a dark image comprising stored digital pixel
3 output signals.

1 12. The digital camera of claim 11, wherein said image processing circuitry is adapted to
2 sample the dark image in regions corresponding to the regions of saturated digital pixel output
3 signals in an image of interest.

1 13. The digital camera of claim 10, wherein said image processing circuitry is adapted for use
2 with imaging array sensors comprising at least one of a CCD sensor and a CMOS sensor.

1 14. The digital camera of claim 9, wherein the image processing circuitry comprises fixed
2 pattern noise reduction circuitry.

1 15. The digital camera of claim 14, wherein the fixed pattern noise reduction circuitry
2 comprises dark fixed pattern noise reduction circuitry.

1 16. The digital camera of claim 9, wherein said image processing circuitry is adapted to detect
2 regions of saturated digital pixel output signals in an image of interest.

1 17 A method of processing digital pixel output signals produced by a digital imaging array
2 comprising:

3 processing saturated digital pixel output signals differently from non-saturated digital pixel
4 output signals.

1 18. The method of claim 17, wherein said imaging array includes imaging array sensors;
2 and further comprising estimating the dark image fixed pattern noise for said imaging array
3 sensors;

4 wherein processing saturated digital pixel output signals differently includes subtracting an
5 estimate of the dark image fixed pattern noise for said imaging array sensors.

1 19. The method of claim 18, wherein estimating the dark fixed pattern noise comprises
2 sampling from a dark image comprising stored digital pixel output signals.

1 20. The method of claim 19, wherein sampling from a dark image comprises sampling the dark
2 image in regions corresponding to the regions of saturated digital pixel output signals in an image
3 of interest.

1 21. The method of claim 18, wherein said imaging array sensors comprise at least one of a
2 CCD sensor and a CMOS sensor.

